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THE RELATION OF LATIN STUDY TO ABILITY IN ENGLISH VOCABULARY AND COMPOSITION

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Does Latin study pursued for two years by the care-free youths of an American city actually fulfil the hopes of its defenders by adding materially to English vocabulary or to ability in composition?

The only way to answer this question is to set the stage for an experiment and then accept the outcome, whether it is to your liking or not. Talk is of no use. Telling what fine English work your Latin classes do is of no use. They are naturally good or they wouldn't dare study Latin. Or, in more scientific language, Latin students are a highly selected group. How highly, I had no idea until I had actually tried to match them.

The writer is a teacher of Latin; but tired of hearing that his pupils might better be studying how to sell ribbons or to drive automobiles, he gave these pupils the Terman Mental Ability Test. He also gave the same test to a number of others, wholly ignorant of Latin; and by choosing and sifting he secured two equivalent groups.

In the beginning, wishing to get groups as nearly equivalent as possible before applying the intelligence test, the writer picked fifty non-Latin pupils (taking the names alphabetically from the office files) whose records in all subjects matched approximately the records of fifty of the Latin pupils. These pupils had all been in school an average of two and one-half years and had had the same amount of modern language as the Latin group. Their grades in all studies were in the aggregate almost identical with those of the Latin group. Thus they gave promise of being of approximately equal intelligence. The Latin pupils excelled those of the other group an average of 27.3 units in terms of Terman scores. This is an average superiority of 16.6 per cent. Obviously

equal school grades, even in a large variety of subjects with different teachers, do not indicate equal ability.

Entirely apart from the Latin problem, the significance of this group comparison is worthy of a moment's attention. Why is it? Why does one group of fifty pupils get precisely the same school grades in all studies covering an average of two and one-half years of school work as a second group whose mental ability is 16 per cent below it? Teachers mark differently? Yes, but with one hundred pupils and an average of twenty grades each in the record, given by probably ten different teachers in each case, we have such a maze of probable teacher-combinations that the personal equation is surely eliminated. To say that the Latin pupils were naturally superior is equally beside the point, since only such Latin pupils are being considered as secured grades as low as their non-Latin fellows. The only difference in the two groups that the writer can discover, and therefore the only plausible source of the discrepancy between intelligence and school records, is in the courses of study pursued.

Naturally, all, or practically all, of the Latin pupils are in the college-preparatory courses. This means that their studies had consisted of algebra, goemetry, laboratory sciences, and history, as well as Latin. The non-Latin pupils were almost equally in the "general" and the "commercial" courses. This means that their work had included such studies as drawing, manual training, domestic science, typewriting, shorthand, business writing, etc. Can it be that, given equal intelligence and ability, it is easier to secure an A or a B in typewriting or design or shorthand, than in Latin or geometry? The writer is forced to an affirmative answer. He sees no other interpretation of the facts. This discovery was an accidental by-product of his investigation; but it has large importance for school men because of the light it sheds on the school credits that ought rightly to be given for the studies concerned.

Finding, then, that equality of ability did not carry with it equality of school records, the writer was forced to omit from the group the best Latin pupils (that is, those with the highest intelligence scores) and to scour the school for commercial pupils strong enough to match those who were left. Conversely, he added to

the list the weakest pupils in the Latin classes and dropped the weakest non-Latin pupils from the original groups. By this method he finally secured two groups exactly equal in intelligence scores by the Terman Mental Ability Test. There were forty-two in each of these equal groups.

For the benefit of those interested from the scientific measurement point of view, it may be said that these two groups had not only equal aggregate intelligence scores, but that they paired off individual with individual almost exactly, so that the scores furnished a very high degree of reliability for comparison.

To each of these groups, under identical conditions, was given an English test in two parts. One part consisted in writing a composition of "about 150 words" on any one of the following topics: "Why a Citizen Ought to Vote," or "The Advantages of Any Labor-saving Device," or "The Description of a Person." The only purpose that guided the naming of these topics was to get such subjects that some one would appeal to the interests of every pupil, giving no advantage to those of either group.

The second part of the test called for a definition of "as many of the following words as you can write in ten minutes." The pupils were told to give definitions in any form, either by mentioning a synonym, by a phrase, or by a whole sentence, "in any way that will indicate that you know what the word means." In marking the answers this was the only criterion applied.

| ı. | abbreviation |
|-----|--------------|
| 2. | affiliate |
| 3. | amplificator |
| 4. | armada |
| 5. | bankrupt |
| 6. | bestiality |
| 7. | brevity |
| 8. | calory |
| 9. | centenary |
| 10. | cloister |
| ıı. | confederacy |
| 12. | credence |
| 13. | debility |
| | differential |

15. druidism16. elicit

| 17. | evacuation |
|-----|---------------|
| 18. | ferocity |
| 19. | forensic |
| 20. | garner |
| 21. | gubernatorial |
| 22. | herculean |
| 23. | identical |
| 24. | influx |
| 25. | jocularity |
| 26. | latent |
| 27. | literal |
| | mandatory |
| 29. | militant |
| 30. | mucilaginous |
| 31. | nonpareil |
| 32. | ossify |

| 33. passivity | 42. sibilant |
|-------------------|----------------|
| 34. pictorial | 43. soliloquy |
| 35. pomegranate | 44. statuette |
| 36. probational | 45. sumptuary |
| 37. quaternary | 46. temerity |
| 38. reduplication | 47. torpidity |
| 39. revulsion | 48. tyranny |
| 40. salient | 49. vehicular |
| 41. sectarian | 50. vulnerable |

The method of selecting this list is important. It consisted of taking the first Latin-derived word on every eighteenth page of a certain school edition of a dictionary. The only variation was to skip obsolete and technical words and those too simple to furnish a real test of vocabulary. Two things are evident: (1) only Latinderived words were employed; (2) nevertheless, there was absolutely no direct connection between these words and the derivation studies of the Latin classrooms. We wish to know whether the study of Latin stems actually developed in the pupils a better knowledge of the meaning of English words derived from Latin than was acquired by those who made no study of Latin. Obviously, this can be tested only by giving to both groups words of Latin origin. We are incidentally testing how far transfer takes place between derivation study in the classroom and other words not specifically discussed. Therefore, it is desirable to have the list consist of words selected in this manner, not of words directly associated with the Latin course.

It will be asked whether the Latin and non-Latin groups were equal in general language ability as well as in intelligence. Two things may be said about this. (1) It has been discovered that there is a high correlation, amounting in most instances almost to identity, between general intelligence and language ability. For example, the Thorndike-McCall Reading Scale results show this. (2) The intelligence test used (Terman Mental Ability Test) consists, to the extent of four-fifths of its whole, of tests depending wholly upon one's ability in language. It, therefore, may fairly be assumed that except in words affected by the study of Latin the general vocabulary ability of the two groups was the same. This is the more likely to be true from the fact that while the Latin group had

had an average of only one year of modern-language study the non-Latin pupils had studied the modern languages for an average of one and three-quarters years. This, together with identity in Terman scores, makes it fairly certain that in general vocabulary ability the Latin group had no possible advantage except such as came from the study of Latin itself.¹

In scoring the compositions the Nassau Supplement to the Hillegas Scale was used, and the scoring was done by experienced teachers who lived at a distance from the school and knew neither the individuals nor the group to which they belonged.

In scoring the vocabulary test equal credit (one unit) was allowed for every word for which the pupil gave evidence in his answer that he correctly understood. Formal or accurate definition was not insisted upon. The low scores for both groups are due to the short time allowed (ten minutes). This should have been doubled. The words were typed in a list without context.²

The results shown appear in Table I. For the interest which the comparison may evoke, the average school grades and the

TABLE I

Comparison of School Marks and Language Test Scores of Latin and NonLatin High-School Groups of Equal Average Intelligence

| | Latin Group | Non-Latin Group | Percentage of Superiority of Latin Group |
|---|-------------|-----------------|--|
| Terman score | 153.6 | 153.6 | |
| Number of years in school | 2.2 | 2.6 | |
| Number of years of modern- language study Grades in scholarship record: | 1.0 | 1.7 | |
| A | 4.0 | 4.2 | l |
| B | 5.0 | 6.3 | |
| C | 5.6 | 6.3 | |
| D | 2.5 | 2.4 | |
| Score on Nassau scale | 6.5 | 6.1 | 6.5 |
| Score on vocabulary test | 16.2 | 12.2 | 33.0 |

number of years in school are included as well as the average scores in the tests themselves.

¹ The pupils had studied English in the same classes during their school course.

² A much better form in which to give such a vocabulary test has just been developed by Professor W. L. Carr of Oberlin. See "First-Year Latin and Growth in English Vocabulary," *School and Society*, XIV (September 17, 1921).

Thus, this experiment (carried out with the utmost care in observing the rules of measuring, and for which the individual records are on file and subject to verification), although undertaken on a modest scale, as the infinite labor involved made imperative, seems to have proved something.

Surely it proves that given two pupils of equal intelligence, working under like conditions of educational opportunity, the one who studies Latin for two years will at the end of that time have a passive English vocabulary 33 per cent larger on its Latin-derived side than his fellow who did not study Latin. And inasmuch as the Latin element in English is at least 60 per cent of the whole, that means that he knows 18 per cent more English words than his fellow. It also proves that in the opinion of competent and disinterested judges the Latin pupil will naturally write 6.5 per cent better English than his non-Latin friend. It proves that there is some tangible value in Latin study.

But is this degree of superiority worth all it costs? Who can say? It is for the critics to prove that it is not worth the cost, by producing similar superiority under controlled conditions by some simpler method.

Then, too, perhaps Latin does other things also? Maybe it "develops the mind." Will someone prove it, instead of just saying it?